

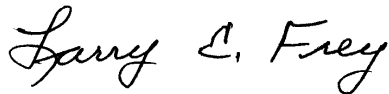
UNITED STATES DEPARTMENT OF AGRICULTURE
Oregon State Farm Service Agency
7620 SW Mohawk Street
Tualatin, Oregon 97062-8121

OR Notice CRP-60

For: Oregon County Offices

Roles and Responsibilities Concerning ESA CRP

Approved by: Larry E. Frey, FSA State Executive Director



Concurred by: Robert Graham, NRCS State Conservationist



1 Overview

**A
Purpose**

To provide guidance concerning FSA and NRCS roles and responsibilities regarding biological evaluations for FSA programs.

**B
Background**

FSA State Office (STO) received several phone calls and e-mail messages regarding the Endangered Species Act (ESA) and how it applies to conservation programs.

Natural Resource Conservation Service (NRCS) revised their ESA procedures after field reviews showed that inadequate documentation was being maintained.

The revised NRCS ESA procedures also affect FSA and necessitated a change in FSA procedures.

FSA and NRCS STO met to discuss and resolve the ESA issue.

**C
NRCS Concurrence**

The NRCS State Office has concurred with the contents of this Notice.

Disposal Date:

June 1, 2002
6/26/01

Distribution:

Oregon County Offices, DDs, COR
FSA COF to provide a copy to local NRCS Office

OR Notice CRP-60

2 Biological Evaluations

A Programs

NRCS will complete biological evaluation on all **new** standard CRP, CREP wetland, and continuous CRP contracts.

In most cases, CREP is exempt, except for wetlands, because it has a blanket biological opinion. As long as the work is covered by the CREP biological opinion, a biological evaluation is not necessary.

Note: All FSA Offices have a copy of the CREP biological opinion.

B Completed Biological Evaluations - NRCS Responsibilities

The local NRCS Office will provide a copy of the completed biological evaluation to the local FSA Office.

C COF Actions with Received Biological Evaluations

The FSA County Office (COF) shall forward all biological evaluations to the FSA State Office (STO).

D FSA STO Actions

The FSA STO shall forward all biological evaluations having any effect to the US Fish and Wildlife Service or National Marine Fisheries Service for consultation.

The FSA Program Specialist shall sign the biological evaluations having no effect and return the signed copy to the COF.

The FSA STO will also provide a copy of the US Fish and Wildlife Service or National Marine Fisheries Service consultation report to the COF.

OR Notice CRP-60

2 **Biological Evaluations, Continued**

E

**FSA COF Actions
with Signed
Biological
Evaluations and
Reports**

The local FSA COF shall provide a copy of the signed biological evaluations and consultation reports to the local NRCS Office and to the producer.

A copy shall also be placed in the producer's file.

OR Notice CRP-60

OR. Exhibit 1

(Example of a) Biological Evaluation

Agency: USDA – Farm Service Agency

Project: XXXXXXXXXXXXXXXXXX

Program: XXXXXXXXXXXXXXXXXX

Basin: XXXXXXXXXXXXXXXXXX

Prepared By the Natural Resources Conservation Service:

(signature)XXXXXXXXXXXX

Title:

XXXXXXXXXXXXXXXXXXXX

Concurred By: (signature)XXXXXXXXXXXX

Title: FSA Program Specialist

Date: XXXXX XX, XXXX

Length of BE Coverage (range of dates) XX/XXXX - XX/XXXX (i.e., 06/2000 – 06/2004, project implementation + O&M)

I. PROJECT DESCRIPTION, LOCATION AND ACTIONS:

The project involves a partnership of landowners and agencies solving a variety of identified riparian and in-stream fish habitat problems. This project is being funded by the USDA Farm Service Agency (FSA) with Technical Assistance provided by the Natural Resources Conservation Service (NRCS). As part of the Technical Assistance, NRCS prepared this Biological Evaluation for concurrence by FSA in order to determine the effects of this project on Threatened and Endangered Species under Section 7 of the Endangered Species Act (ESA). This area has also been designated as Essential Fish Habitat under the Magnuson-Stevens Act and this Biological Evaluation will determine the effects of this project on coho and chinook species that are deemed as commercially valuable.

This Biological Evaluation is intended to cover the installation and monitoring of this project which extends until the year XXXX. This biological evaluation covers measures planned for installation during the (summer) and (fall) of XXXX, during the in-stream work window. A brief description follows:

This project is located within XXXX County within the XXXXX watershed. It is located on the XXXX River within T XX, R XX, S XX.

In-stream measures planned this summer include the installation of 8 fish friendly rock weirs (see attached designs). These are designed to improve in-stream fish habitat and solve major fish barrier problems at four major irrigation diversion dams. They are an extension of previously installed rock weirs within the City of XXXX. Located in a confined reach of the XXXX River, the weirs are the preferred alternative. Currently existing in the project area are dam structures/diversions that are 3 to 5 feet in height and present a major fish barrier problem. The V shaped vortex rock weirs will be installed stepwise downstream of the existing diversions. They will meet fish passage criteria with a 6 to 8 inch lift at the center V notch of each weir. Three weirs (maximum) are planned below each dam. Higher dams will have the concrete lip notched to conform to height criteria. Spacing of the rock weirs will be approximately one channel width between weirs. Construction provides for optimum pools below each

weir and the establishment of riparian vegetation including willows along the pool edges. The Oregon Department of Fish and Wildlife (ODFW) in-stream work window on this section of the XXXX River is July 1 to October 31. A location map and plans are attached.

II. PROJECT OBJECTIVES

- Improve in-stream aquatic environment for native trout including the potential for bull trout on the XXXXX River. Presently, no bull trout are known to be in the XXXX River; however this project will improve conditions for bull trout by eliminating fish passage barriers, improving pool to riffle ratios and improving diversity and habitat conditions.
- Stabilize and enhance existing stream bank and riparian conditions by reducing velocities in selected reaches and improving overhanging bank and wetland vegetation.
- Protect valuable farmland from flood damage.

III. DESCRIPTION OF ESA SPECIES

Bull Trout (*Salveninus confluentus*)

In June 1998 the US Fish and Wildlife Service (USFWS) officially listed Columbia River Basin bull trout as "Threatened" under the Endangered Species Act.

Bull trout populations have been declining for many years in the XXXX River Basin (ODFW 1997). In the XXXX River project reach, both upstream to XXX Dam and downstream to XXXXX River, there have been no recorded sightings or catches of bull trout for many years. Remnant populations exist in higher XXXX stream tributaries of the XXXX River. XXXX dam is a barrier to migration on the upper XXXX River. The Oregon Department of Fish and Wildlife has determined that the most critical times for bull trout within the XXX River occurs from November 1 to June 30, therefore, work is not planned during this time period.

IV. DESCRIPTION OF ACTION AREA

The USDA NRCS evaluated whether there could be effects from Federal actions on the above listed species and their habitat, based on the 1988 Oregon Department of Water Quality 303(d) list, and "A Framework to Assist in Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Bull Trout Subpopulation Watershed Scale " (USFWS 1998).

XXX River Watershed for Bull Trout

Subpopulation Characteristic

Subpopulation Size: According to the Status of Bull Trout (ODFW 1997), the XXX River population is highly fragmented. Subpopulation numbers are below 50 adult fish; therefore this characteristic is considered to be **Functioning at Unacceptable Risk**.

Growth and Survival: Since the subpopulation in the XXX River System is highly fragmented, a catastrophic disturbance has the potential to eliminate one of the small populations altogether. However, according to ODFW (1997) the population in the upper XXX River (i.e., the project area) is at "moderate" risk. Therefore, this element is considered **Functioning at Risk**.

Life History Diversity and Isolation: As stated earlier, the population in the XXX River system is highly fragmented (ODFW 1997). Dams along the XXXX River have isolated these populations and altered historic migration patterns. Therefore, this element is considered **Functioning at Unacceptable Risk**.

Subpopulation Trend: According to ODFW (1997) the population in the Upper XXXX River (i.e., the project area) is considered to be at "moderate" risk. This was based on a study done by Ratliff and Howell (1992). Therefore, this element is considered to be **Functioning at Risk**.

Persistence and Genetic Integrity: Several small populations occur within the XXXX River basin. One has been rated by Ratliff and Howell (1992) to be at "moderate" risk, while the others are at "high" risk or "probable extinction". Therefore this element is considered to be **Functioning at Unacceptable Risk**.

Habitat

Temperature: The XXX River (Mouth to XXX Creek) is listed on the Oregon Department of Environmental Quality's 303(d) list for high temperature concerns during the months of fish rearing (DEQ 1998). Temperatures exceeded the temperature standard of 64 degrees Fahrenheit each year between 1988 and 1995. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Sediment: The XXX River (Mouth to XXX Creek) is not listed on DEQ's 303(d) list for Sediment concerns. However, due to the amount of habitat alteration that has historically occurred throughout this basin and the lack of data, this element is considered to be **Functioning at Unacceptable Risk**.

Chemical Contamination/Nutrients: The XXX River (Mouth to XXX Creek) is listed on DEQ's 303(d) list for high fecal coliform levels and low dissolved oxygen levels for cold-water aquatic life. Low dissolved oxygen levels may be contributed to the amount of agriculture in the area and long use of nutrients. Therefore this element is considered to be **Functioning at Unacceptable Risk**.

Habitat Access

Physical Barriers: There are several dams and diversions in the watershed. XXXX Dam blocked passage to upstream portions (River Kilometer 112) of the XXX River in 1932. XXX Dam isolated populations in the Upper XXX River from those in the North XXX River in 1968. Construction of the XXXX Dam in 1959 limited access of any fluvial bull trout in XXX Creek to the pool above XXX Dam on the XXX River (ODFW 1997). There are numerous water diversion structures on the XXX River as well as many of its tributaries. Therefore, this element is considered **Functioning at Unacceptable Risk**.

Habitat Elements

Substrate Embeddedness: The XXX River (Mouth to XXX Creek) is not listed on DEQ's 303(d) list for Sediment concerns. However, due to the amount of irrigation diversions on the XXX River and its tributaries and the alteration of channels, the flushing action to remove fines from substrates is suspected to be limited. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Large Woody Debris: Although the XXX River has not been listed on DEQ's 303(d) list for Habitat Modification, the area has been highly modified to accommodate agriculture needs historically. Several diversions occur throughout the basin, riparian areas have been cleared and channels have been straightened and converted into ditches. Large wood in the channels would have been removed to

ensure that blockages of irrigation diversions did not occur. Therefore, this element is considered **Functioning at Unacceptable Risk**.

Pool Frequency and Quality AND Large Pools: The actions listed above in Large Woody Debris also had an effect on pool frequency and quality. Removal of large woody decreases pool habitat and the quality of complex pools. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Off-Channel Habitat AND Refugia: Due to the historic needs of irrigation for agricultural fields, many of the streams have been straightened to increase efficiency of irrigation systems. This typically removes area of off-channel habitat or refugia. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Channel Conditions & Dynamics

Wetted Width/Maximum Depth Ratio: The XXX River area has been highly modified to accommodate agriculture needs historically. Several diversions occur throughout the basin, riparian areas have been cleared and channels have been straightened and converted into ditches. These activities alter width to depth ratios within channels. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Streambank Condition: The XXX River area has been highly modified to accommodate agriculture needs historically. Riparian areas have been cleared and channels have been straightened and converted into ditches. These activities alter streambank stability within channels. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Floodplain Connectivity: The XXX River area has been highly modified to accommodate agriculture needs historically. There has been a reduction in the connectivity of the streams to their floodplains through channel straightening and irrigation diversions removing water during times of low flow conditions. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Flow/Hydrology

Change in Peak/Base Flows: The XXX River (Mouth to XXX) is listed on DEQ's 303(d) list for Flow Modification. Water withdrawals have been noted as a concern in this area. Straightening channels can affect peak and base flows. Irrigation also occurs within the upper portions of the XXX River; therefore, this element is considered **Functioning at Unacceptable Risk**.

Increase in Drainage Network: Active channel length has been increased through increased road density and creation of irrigation ditches. Since these two activities are prevalent throughout this basin, this element is considered **Functioning at Unacceptable Risk**.

Watershed Conditions

Road Density & Location: Road density has increased with both paved and gravel roads. There are several farm access roads as well. Although exact road density in this area is not known, it is assumed to be over 2.5 mi/mi²; therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Disturbance History: The XXX River area has been highly modified to accommodate agriculture needs historically. Several diversions occur throughout the basin, riparian areas have been cleared and

channels have been straightened and converted into ditches. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Riparian Areas: Riparian areas have been cleared for agricultural purposes over time. Some riparian areas remain in tact, but overall the riparian areas are not as wide as they once were and they are fragmented. Therefore this element is considered to be **Functioning at Unacceptable Risk**.

Disturbance Regime: The XXX River has been simplified and does not provide hydraulic or pool complexity, refugia or off-channel habitat. Streams have been converted into ditches for irrigation purposes and the riparian areas have been altered. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

Integration

According to Ratliff and Howell (1992), many of the populations in the XXX River basin are at "high" risk or have been identified as "probably extinct." Under current management of the basin, habitat conditions will not improve within two generations. Therefore, this element is considered to be **Functioning at Unacceptable Risk**.

V. EFFECTS OF THE PROPOSED ACTION ON PROPOSED/LISTED SPECIES OR PROPOSED/DESIGNATED CRITICAL HABITAT

The **short-term effects** of the project on bull trout are related to the affects of construction activity on downstream water quality. These impacts are limited and very short term. In-stream activities include the placement of rock vortex weirs. Live root wads/cuttings will be incorporated in keyed end areas of all structures. Impact on native fisheries and downstream water quality are negligible, very short term and will be minimized by these additional project measures.

- a) Construction activities will be completed in low flows in an acceptable fishery window.
- b) In-stream construction activities will be monitored by NRCS technicians to minimize in-stream disturbance.
- c) ODFW technicians will be available for on-site monitoring during construction.

Long-term effects for aquatic organisms will be increased stabilization of stream banks, enhanced riparian conditions including overhanging banks, an increase in deep water pools through weir placement, elimination of fish barriers, thalweg stabilization in critical land use areas, increased woody vegetation and improved in-stream aquatic habitat diversity. These effects will all provide long term positive benefits for native existing trout fisheries and potentially for bull trout.

Subpopulation Characteristic

Subpopulation Size: This project will **maintain** the subpopulation size of bull trout in the Upper XXX River.

Growth and Survival: Once the riparian vegetation matures, this project may aid in the survival of bull trout in the upper reaches of the XXX River by moderating stream temperatures, however, within the whole basin, this project will **maintain** this indicator.

Life History Diversity and Isolation: This project is not proposing to remove the large dams that prevent migration; however it is proposing to improve fish passage at several small barriers. Assessing this indicator at the basin level, this project will **maintain** Life History Diversity and Isolation.

Subpopulation Trend: This project could improve habitat conditions within the local area by improving pool habitat, removing current fish passage barriers and improving riparian habitat; however for the whole basin, this project will **maintain** the subpopulation trend currently within the Upper XXX River area.

Persistence and Genetic Integrity: This project may assist in distributing any bull trout above these fish barriers, however, it will not re-connect the upper populations with those in the North XXX River; therefore, this project will **maintain** bull trout persistence and genetic integrity.

Habitat

Temperature: This project may aid in moderating stream temperatures once the riparian vegetation matures. Over the whole basin, this project will **maintain** current stream temperatures.

Sediment: This project may add sediment to the area for a few days during project construction. The project will be implemented during the ODFW in-stream work window and due to the limited use of bull trout to the area, it is likely that this short-term addition of sediment will not harm the species. Assessing the basin as a whole, this project will **maintain** current sediment levels.

Chemical Contamination/Nutrients: This project is not proposing to change the chemical composition or nutrients within the project area; therefore, this element will be **maintained**.

Habitat Access

Physical Barriers: This project is proposing to eliminate several fish passage barriers. If bull trout do use this area, they will be able to negotiate through this section of stream once construction is complete. Assessing the basin as a whole, this project will **maintain** this element.

Habitat Elements

Substrate Embeddedness: Once the riparian vegetation matures and is functional, it could prevent the movement of sediment into this portion of the stream, reducing the amount of substrate embeddedness. However, assessing this element over the entire XXX River, this element will be **maintained**.

Large Woody Debris: This project will not directly add or remove large woody debris to the stream channel. However, once the riparian vegetation matures, there will be an increase in future large woody debris recruitment. However, this project will not change the amount of large woody debris in the basin; therefore this element will be **maintained**.

Pool Frequency and Quality AND Large Pools: The vortex weirs should create pool habitat below the weir. These pools could provide rearing areas for juvenile fish and could provide resting pools for adult bull trout as they migrate upstream. However, these two elements will be **maintained** when assessing the basin as a whole.

Off-Channel Habitat AND Refugia: This project may not create side channels, but it should create areas of refugia via the pools created by the vortex weirs. . However, these two elements will be **maintained** when assessing the basin as a whole.

Channel Conditions & Dynamics

Wetted Width/Maximum Depth Ratio: This project will **maintain** the width to depth ratio locally and basin wide.

Streambank Condition: This project will improve streambank stability once the riparian vegetation matures. The project will **maintain** this element over the whole basin.

Floodplain Connectivity: This project will improve floodplain connectivity by improving riparian conditions locally. The project will **maintain** this element over the whole basin.

Flow/Hydrology

Change in Peak/Base Flows: This project will **maintain** peak and base flows at the local and basin level.

Increase in Drainage Network: This project will **maintain** the drainage network at the local and basin level.

Watershed Conditions

Road Density & Location: This project will **maintain** current road density and road locations at the local and basin level.

Disturbance History: This project is assisting in the reversal of the disturbance that has occurred in the area (i.e., dams, riparian vegetation clearing, etc.). The project will **maintain** disturbance history at the basin level.

Riparian Areas: The proposed project will improve riparian vegetation that will improve water quality conditions and floodplain connectivity. Riparian vegetation will not only improve conditions for bull trout, but it will improve for other aquatic and terrestrial species. However, this element will be **maintained** at the basin level.

Disturbance Regime: This project is assisting in the reversal of the disturbance that has occurred in the area (i.e., dams, riparian vegetation clearing, etc.). The project will **maintain** disturbance history at the basin level.

Integration

This project will assist in improving local conditions for bull trout by improving in-stream habitat conditions, water quality, and riparian function. It is only one project in a large basin; therefore, it will not be able to reverse the current population trends of bull trout in the XXX River.

The project will **maintain** all existing indicator functions on a watershed scale and restore functions of several of the indicators on a reach basis. **No degradation** of any of the indicators will result from project actions (See Table 1). Project measures are site specific and relatively small in scope compared to the magnitude of the habitat deficiencies within the watershed. Therefore, the project cannot, by itself, restore indicators on a watershed basis to the next higher functional level.

It is important to note that project specifications address riparian and in-stream aquatic habitat maintenance and restoration needs. The project will locally improve certain severely impacted habitat indicators for the reach.

Table 1. Checklist for Documenting Environmental Baseline and Effects of Proposed Action(s) on Relevant Indicators

DIAGNOSTICS/ PATHWAYS: INDICATORS	POPULATION AND ENVIRONMENTAL BASELINE (list values or criterion and supporting documentation)			EFFECTS OF THE ACTION(S)		
	Functioning Adequately	Functioning At Risk	Functioning at Unacceptable Risk	Restore ¹	...Maintain ²	Degrade ³
<u>Subpopulation Characteristics:</u> Subpopulation Size			X		X	
Growth and Survival		X			X	
Life History Diversity and Isolation			X		X	
Subpopulation Trend		X			X	
Persistence and Genetic Integrity			X		X	
<u>Water Quality:</u> Temperature			X		X	
Sediment			X		X	
Chem. Contam./Nutrients			X		X	
<u>Habitat Access:</u> Physical Barriers			X		X	
<u>Habitat Elements:</u> Substrate Embeddedness			X		X	
Large Woody Debris			X		X	
Pool Frequency and Quality			X		X	
Large Pools			X		X	
Off-channel Habitat			X		X	
Refugia ⁴			X		X	
<u>Channel Cond. & Dynamics:</u> Wetted Width/Max.Depth Ratio			X		X	
Streambank Condition			X		X	
Floodplain Connectivity			X		X	
<u>Flow/Hydrology:</u> Change in Peak/Base Flows			X		X	
Drainage Network Increase			X		X	
<u>Watershed Conditions:</u> Road Density & Location			X		X	
Disturbance History			X		X	
Riparian Conservation Areas			X		X	
Disturbance Regime			X		X	
<u>Integration</u>			X		X	

Watershed Name: Upper XXX River

Location: XXXX

1. For the purposes of this checklist, "restore" means to change the function of an "functioning at risk" indicator to "functioning adequately", or to change the function of a "functioning at unacceptable risk" indicator to "functioning at risk" or "functioning adequately" (i.e., it does not apply to "functioning adequately" indicators). Restoration from worst to a better condition does not negate the need to consult/confer if take will occur.
2. For the purposes of this checklist, "maintain" means that the function of an indicator does not change (i.e., it applies to all indicators regardless of functional level).
3. For the purposes of this checklist, "degrade" means to change the function of an indicator for the worse (i.e., it applies to all indicators regardless of functional level). In some cases, a "functioning at unacceptable risk" indicator may be further worsened, and this should be noted.
4. Refugia = watersheds or large areas with minimal human disturbance having relatively high quality water and fish habitat, or having the potential of providing high quality water and fish habitat with the implementation of restoration efforts. These high quality water and fish habitats are well distributed and connected within the watershed or large area to provide for both biodiversity and stable populations.

(adapted from discussions on A Stronghold Watersheds and Unroaded Areas @ in Lee, D.C., J.R. Sedell, B.E. Rieman, R.F. Thurow, J.E. Williams and others. 1997. Chapter 4: Broad-scale Assessment of Aquatic Species and Habitats. In T.M. Quigley and S. J. Arbelbide eds AAn Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins Volume III@. U.S. Department of Agriculture, Forest Service, and U.S. Department of Interior, Bureau of Land Management, Gen Tech Rep PNW-GTR-405).

VI. MITIGATION MEASURES AND SPECIFICATIONS

Mitigation measures are primarily intended to:

- 1) Eliminate the potential of in stream construction activities from disturbing bull trout that are present in the system.
- 2) Reduce the production of sediment that may affect listed species in the short or long term.
- 3) Eliminate or reduce adverse effects to bull trout habitat in the short or long term.

In-stream work windows, as prescribed by the Oregon Department of Fish and Wildlife fisheries biologist, has been incorporated into the project. No sightings of bull trout, either juvenile or adult, have been made on the XXX River during the in-stream work windows.

Although listed fishery species are not likely to be found during construction activities adequate precautions will be taken. Any effect concerns are related to potential post-project effects on the fish or habitat. The major short-term concern is the potential increase of sediment during a high flow event the first year after construction. In all cases, the sediment produced from the project areas during future high flow events is expected to be substantially less. Long term effects are positive. They are related to increased sediment filtration, improved riparian and enhanced in-stream habitat.

Standard construction techniques for in-stream work will be followed (See attached Construction Specification-Pollution Control). Equipment in the stream course will be kept to a minimum and disturbed ground adjacent to the stream will be re-vegetated. Project work will be administered by specialists from the Natural Resources Conservation Service. The XXX Soil and Water and Conservation District is in support of the project. Representatives from the Oregon Department of Fish and Wildlife have participated in the planning of the projects.

MONITORING

- ODFW technicians are available for on-site monitoring during construction.
- Continuous construction inspection will be provided by NRCS personnel during the implementation phase of these projects.
- A Spill Plan will be reviewed and signed by the contractor prior to commencement of construction activity.
- The project sponsors and the landowners are responsible for operation and maintenance of the project.
- Photo points have been established by the XXX Soil and Water Conservation District (SWCD) and photos will be taken prior to construction. Additional photos will be taken during and after construction. Photos will be taken periodically for three years. A final project implementation report and required project monitoring reports will be prepared by the XXX SWCD in consultation with the ODFW and other partners.

VII. ESA DETERMINATION OF EFFECT

Bull Trout (*Salvelinus confluentus*)

The XXX River in the project reach does not have a recently recorded bull trout population. Mitigation measures have been specified to minimize short-term negative effects that the project may have on bull trout. The in-stream activities are restricted to a work window of July 1 to October 31 on the XXX River.

This project has been determined to **"May Effect, Not Likely to Adversely Affect"** bull trout in the Upper XXX River using the Dichotomous Key for Making ESA Determination of Effects (See Attached). This determination is primarily due to the lack of bull trout sightings in the project reach, the long-term benefits of the project and the restrictive work window for in-stream activities. Due the nature of the construction activities, the low late season flows and elevated temperatures during the work window, there is limited potential for bull trout adults or juveniles to be affected by sediment or the actual construction activities. Future sediment production from the project area will be less and long term aquatic habitat diversity will be improved. There may be some limited short-term sedimentation during construction, but it is not expected to last more than a few days.

Dichotomous Key for Making ESA Determination of Effects

Bull Trout

1. Are there any proposed/listed fish species and/or proposed/designated critical habitat in the watershed or downstream from the watershed?
 NO No effect
 YES..... Go to 2
2. Will the proposed action(s) have any effect whatsoever¹ on the species and/or critical habitat:
 NO No effect
 YES..... Go to 3
3. Does the proposed action(s) have the potential to hinder attainment of relevant "functioning adequately" indicators (from table 1)?
 B. NO..... Go to 4
 A. YES Likely to adversely affect
4. Does the proposed action(s) have the potential to result in "take"¹ of and proposed/listed fish species or destruction/adverse modification of proposed/designated critical habitat? ³
 A. There is a negligible (extremely low) probability of take of proposed/listed fish species or destruction/adverse modification of proposed/designated critical habitat.
 Not likely to adversely affect
 B. There is more than a negligible probability of take of proposed/listed fish species or destruction/adverse modification of proposed/designated critical habitat.
 Likely to adversely affect

¹ "Any effect whatsoever" includes small effects, effects that are unlikely to occur, and beneficial effects. I.e. A "no effect" determination is only appropriate if the proposed action will literally have no effect whatsoever on the species and/or critical habitat, not a small effect, an effect that is unlikely to occur, or a beneficial effect.

² "Take" - The ESA (Section 3) defines take as "to harass, harm, pursue, hunt, shoot, wound, trap, capture, collect or attempt to engage in any such conduct". The USFWS (USFWS, 1994) further defines "harm" as "significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering", and "harass" as "actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering".

³ Document expected incidental take on reverse side of this key.

VIII. REFERENCES

Buchanan, D.V., M.L. Hanson, and R.M. Hooton. 1997. Status of Oregon's Bull Trout. Oregon Department of Fish and Wildlife, Portland.

Oregon Department of Environmental Quality. 1998. Oregon's Approved 1998 Section 303(d) List of Water Quality Limited Waterbodies.

Ratliff, D.E. and P.J. Howell. 1992. The status of bull trout populations in Oregon. Pages 10-17 *in* P.J. Howell and D.V. Buchanan, editors. Proceedings of the Gearhart Mountain bull trout workshop. Oregon Chapter of the American Fisheries Society, Corvallis.

U.S. Fish and Wildlife Service. 1998. A Framework to Assist in Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Bull Trout Subpopulation Watershed Scale.